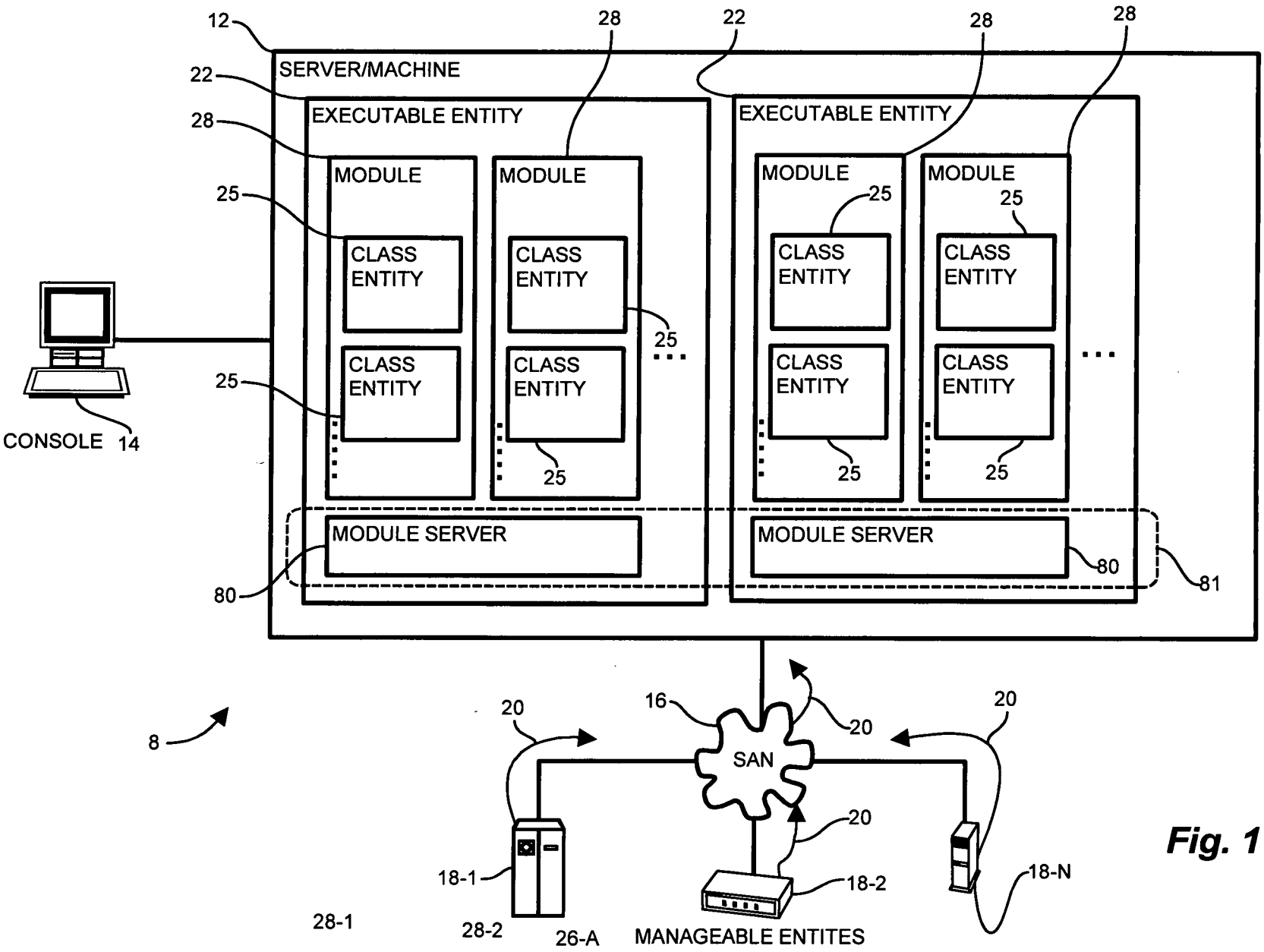
12
28
22
28
28
SERVER/MACHINE
22
EXECUTABLE ENTITY
EXECUTABLE ENTITY
28
MODULE
MODULE
MODULE
MODULE
25
CLASS ENTITY
CLASS ENTITY
CLASS ENTITY
CLASS ENTITY
CLASS ENTITY
CLASS ENTITY
CLASS ENTITY
CLASS ENTITY
25
25
25
25
25
25
25
CONSOLE 14
MODULE SERVER
MODULE SERVER
80
80
81
8
16
20
20
20
20
SAN
18-1
18-2
18-N
28-1
28-2
26-A
MANAGEABLE ENTITES

Fig. 1

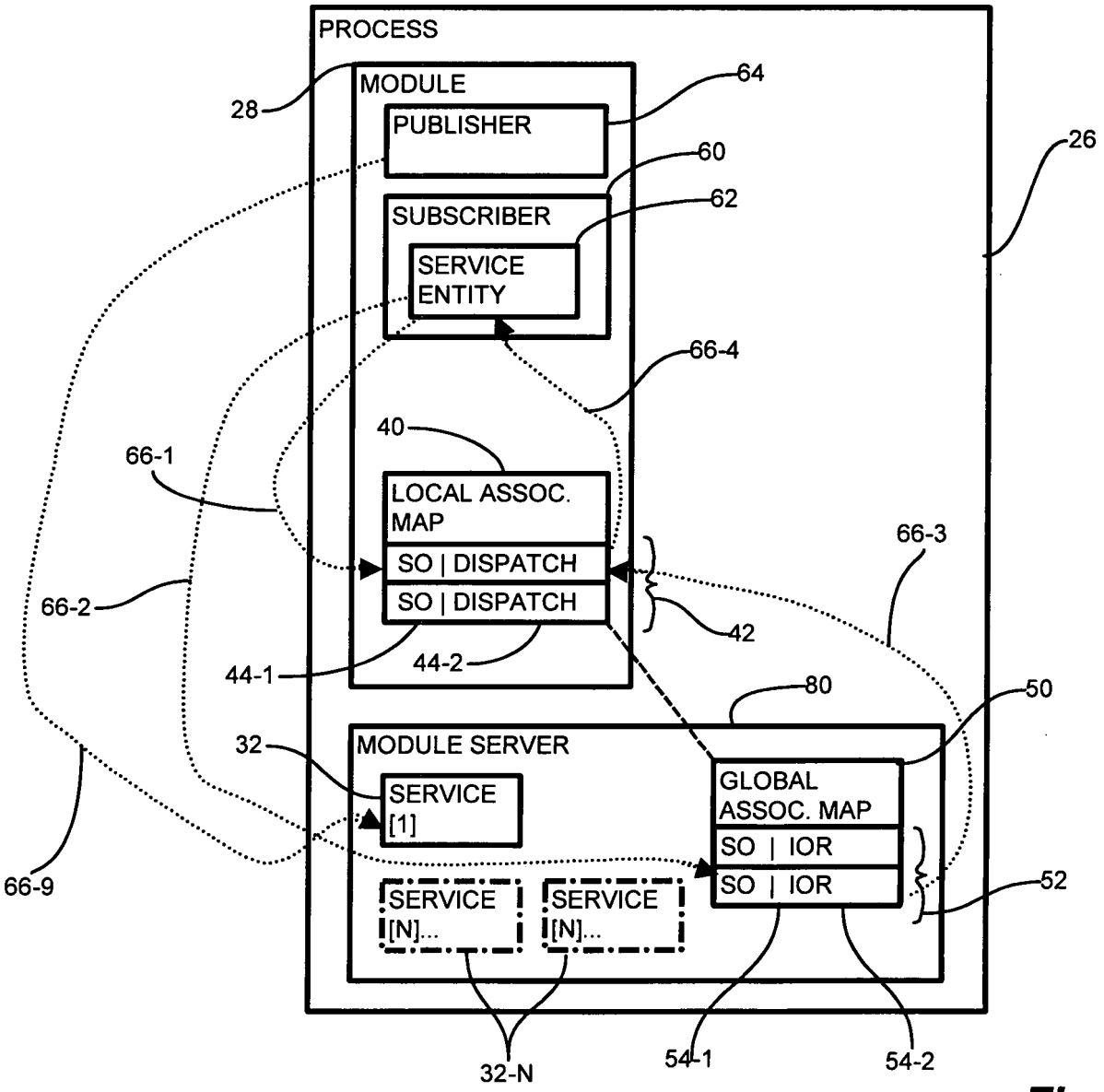
PROCESS
MODULE
28
64
PUBLISHER
60
SUBSCRIBER
62
SERVICE ENTITY
26
66-4
40
66-1
LOCAL ASSOC. MAP
SO | DISPATCH
SO | DISPATCH
66-3
66-2
42
44-1
44-2
80
50
MODULE SERVER
32
SERVICE [1]
GLOBAL ASSOC. MAP
SO | IOR
SO | IOR
52
66-9
SERVICE [N]...
SERVICE [N]...
32-N
54-1
54-2

Fig. 2

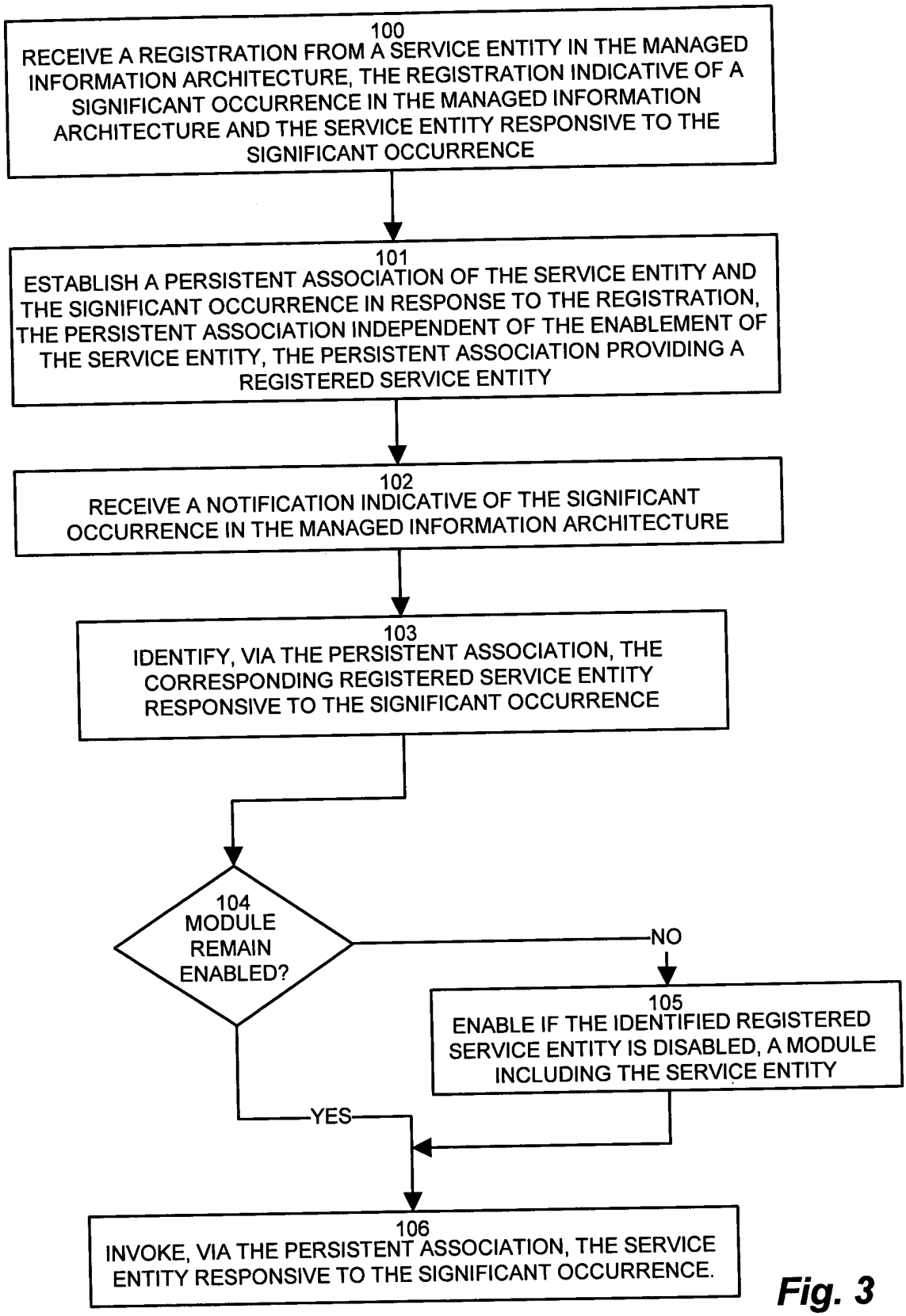
100
RECEIVE A REGISTRATION FROM A SERVICE ENTITY IN THE MANAGED INFORMATION ARCHITECTURE, THE REGISTRATION INDICATIVE OF A SIGNIFICANT OCCURRENCE IN THE MANAGED INFORMATION ARCHITECTURE AND THE SERVICE ENTITY RESPONSIVE TO THE SIGNIFICANT OCCURRENCE
101
ESTABLISH A PERSISTENT ASSOCIATION OF THE SERVICE ENTITY AND THE SIGNIFICANT OCCURRENCE IN RESPONSE TO THE REGISTRATION, THE PERSISTENT ASSOCIATION INDEPENDENT OF THE ENABLEMENT OF THE SERVICE ENTITY, THE PERSISTENT ASSOCIATION PROVIDING A REGISTERED SERVICE ENTITY
102
RECEIVE A NOTIFICATION INDICATIVE OF THE SIGNIFICANT OCCURRENCE IN THE MANAGED INFORMATION ARCHITECTURE
103
IDENTIFY, VIA THE PERSISTENT ASSOCIATION, THE CORRESPONDING REGISTERED SERVICE ENTITY RESPONSIVE TO THE SIGNIFICANT OCCURRENCE
104
MODULE REMAIN ENABLED?
NO
105
ENABLE IF THE IDENTIFIED REGISTERED SERVICE ENTITY IS DISABLED, A MODULE INCLUDING THE SERVICE ENTITY
YES
106
INVOKE, VIA THE PERSISTENT ASSOCIATION, THE SERVICE ENTITY RESPONSIVE TO THE SIGNIFICANT OCCURRENCE.

Fig. 3

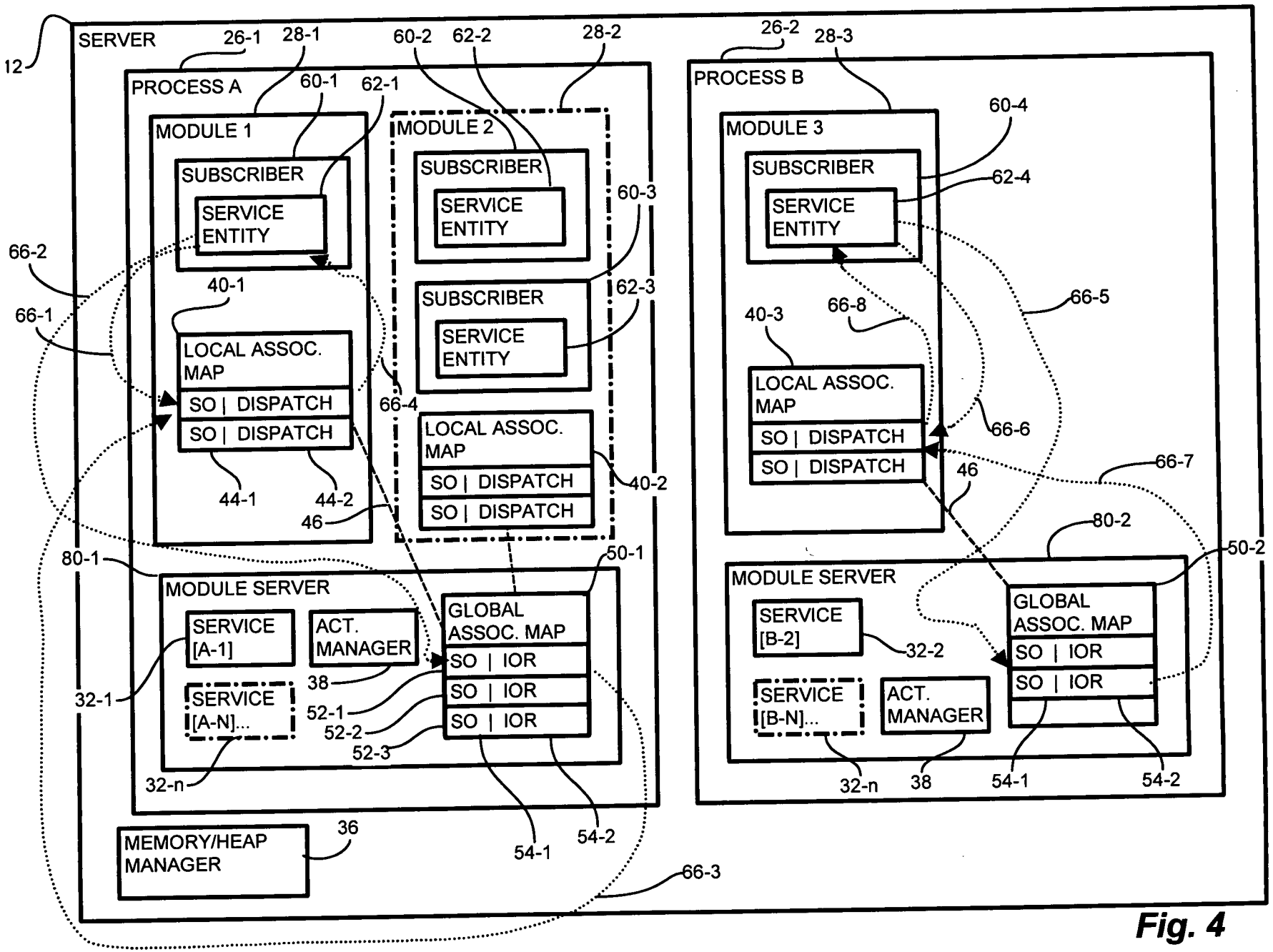
12
SERVER
26-1
28-1
60-2
62-2
28-2
26-2
28-3
PROCESS A
PROCESS B
60-1
62-1
MODULE 1
MODULE 2
MODULE 3
60-4
SUBSCRIBER
SERVICE ENTITY
62-4
60-3
62-3
66-2
66-1
40-1
66-8
66-5
40-3
LOCAL ASSOC. MAP
SO | DISPATCH
66-4
66-6
40-2
66-7
44-1
44-2
46
80-1
80-2
50-1
50-2
MODULE SERVER
SERVICE [A-1]
ACT. MANAGER
GLOBAL ASSOC. MAP
SO | IOR
SERVICE [A-N]...
SERVICE [B-2]
SERVICE [B-N]...
32-1
38
52-1
52-2
52-3
32-2
32-n
54-1
54-2
MEMORY/HEAP MANAGER
36
66-3

Fig. 4

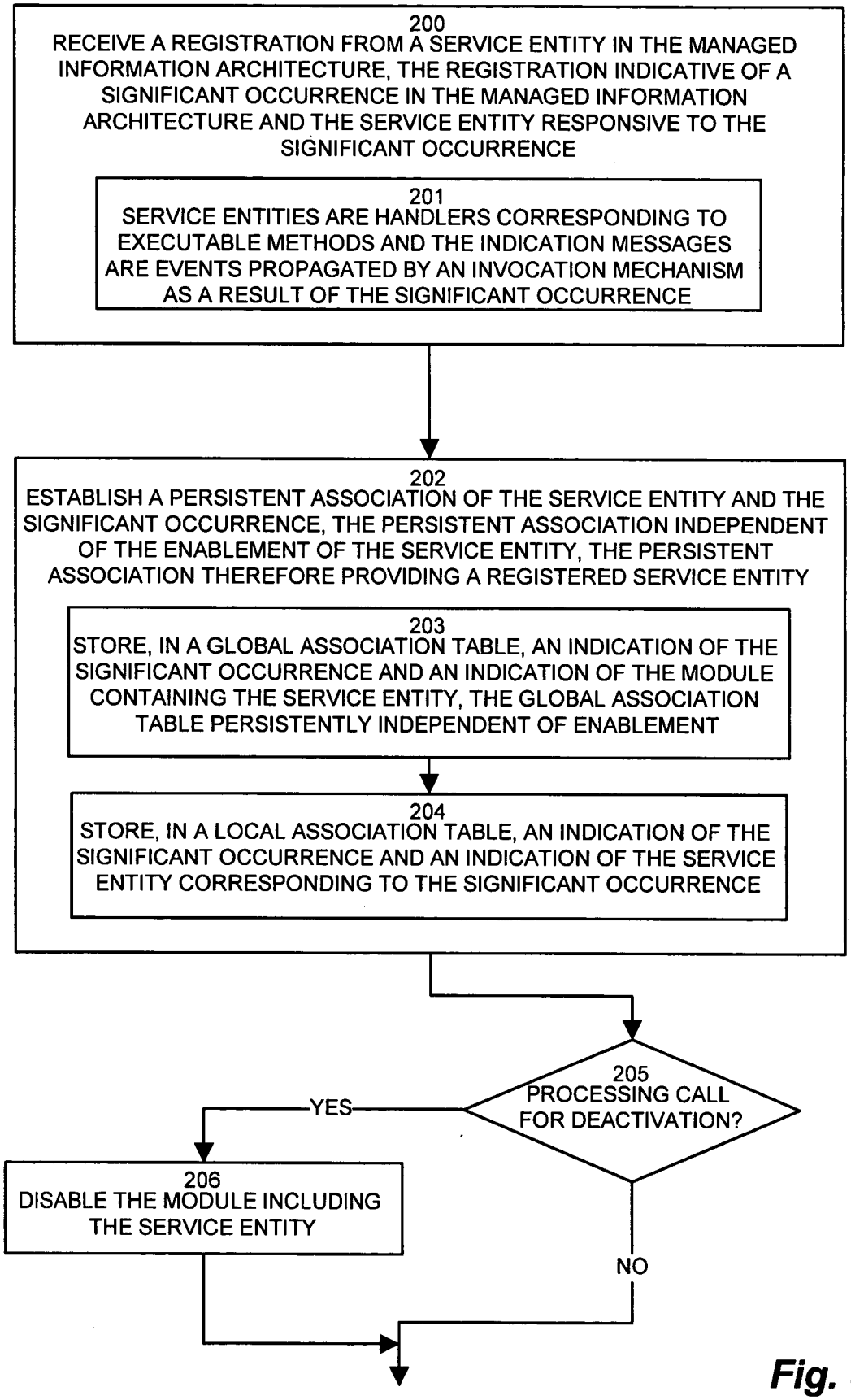
200
RECEIVE A REGISTRATION FROM A SERVICE ENTITY IN THE MANAGED INFORMATION ARCHITECTURE, THE REGISTRATION INDICATIVE OF A SIGNIFICANT OCCURRENCE IN THE MANAGED INFORMATION ARCHITECTURE AND THE SERVICE ENTITY RESPONSIVE TO THE SIGNIFICANT OCCURRENCE
201
SERVICE ENTITIES ARE HANDLERS CORRESPONDING TO EXECUTABLE METHODS AND THE INDICATION MESSAGES ARE EVENTS PROPAGATED BY AN INVOCATION MECHANISM AS A RESULT OF THE SIGNIFICANT OCCURRENCE
202
ESTABLISH A PERSISTENT ASSOCIATION OF THE SERVICE ENTITY AND THE SIGNIFICANT OCCURRENCE, THE PERSISTENT ASSOCIATION INDEPENDENT OF THE ENABLEMENT OF THE SERVICE ENTITY, THE PERSISTENT ASSOCIATION THEREFORE PROVIDING A REGISTERED SERVICE ENTITY
203
STORE, IN A GLOBAL ASSOCIATION TABLE, AN INDICATION OF THE SIGNIFICANT OCCURRENCE AND AN INDICATION OF THE MODULE CONTAINING THE SERVICE ENTITY, THE GLOBAL ASSOCIATION TABLE PERSISTENTLY INDEPENDENT OF ENABLEMENT
204
STORE, IN A LOCAL ASSOCIATION TABLE, AN INDICATION OF THE SIGNIFICANT OCCURRENCE AND AN INDICATION OF THE SERVICE ENTITY CORRESPONDING TO THE SIGNIFICANT OCCURRENCE
205
PROCESSING CALL FOR DEACTIVATION?
YES
NO
206
DISABLE THE MODULE INCLUDING THE SERVICE ENTITY

Fig. 5

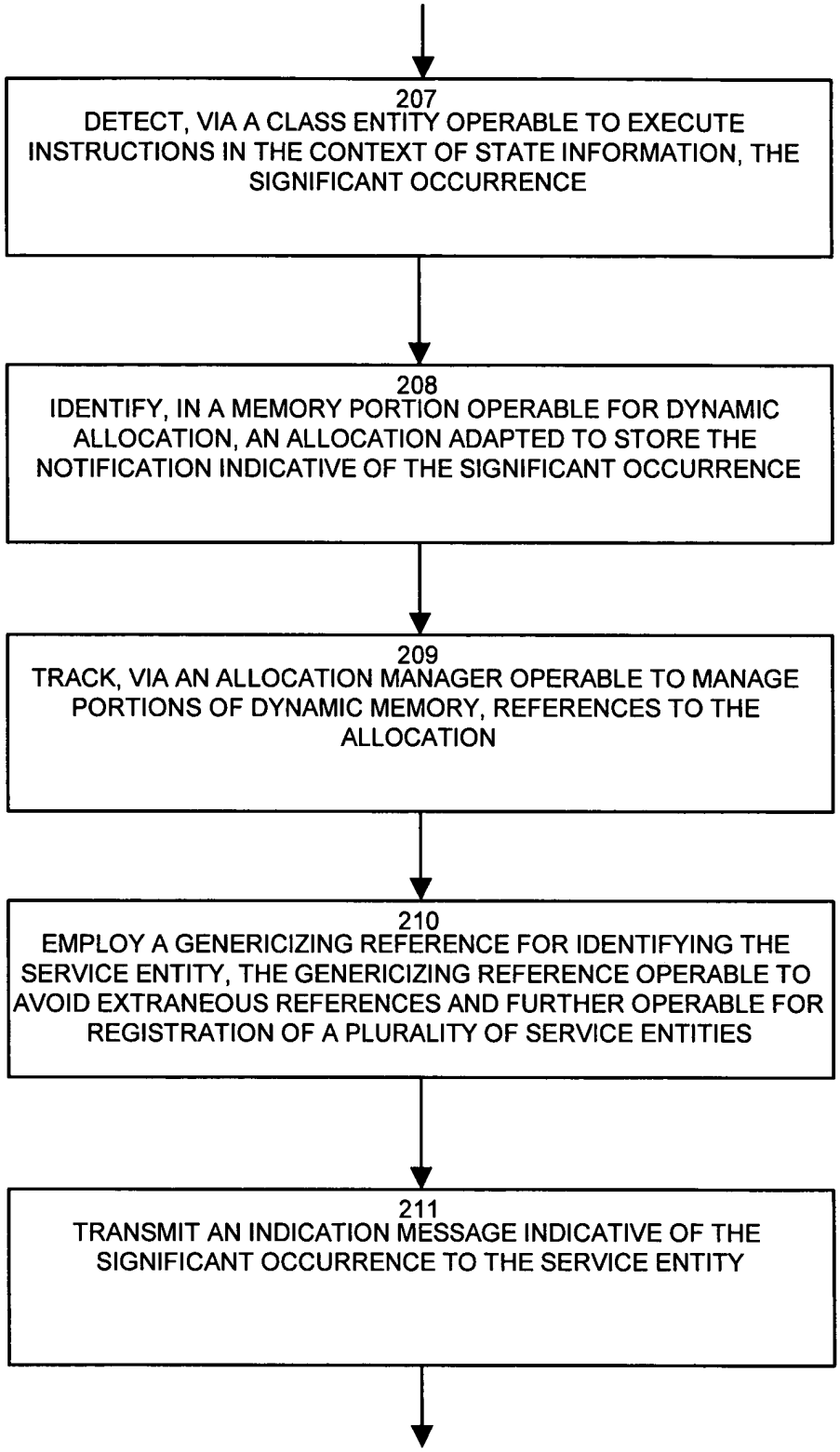
207
DETECT, VIA A CLASS ENTITY OPERABLE TO EXECUTE INSTRUCTIONS IN THE CONTEXT OF STATE INFORMATION, THE SIGNIFICANT OCCURRENCE
208
IDENTIFY, IN A MEMORY PORTION OPERABLE FOR DYNAMIC ALLOCATION, AN ALLOCATION ADAPTED TO STORE THE NOTIFICATION INDICATIVE OF THE SIGNIFICANT OCCURRENCE
209
TRACK, VIA AN ALLOCATION MANAGER OPERABLE TO MANAGE PORTIONS OF DYNAMIC MEMORY, REFERENCES TO THE ALLOCATION
210
EMPLOY A GENERICIZING REFERENCE FOR IDENTIFYING THE SERVICE ENTITY, THE GENERICIZING REFERENCE OPERABLE TO AVOID EXTRANEOUS REFERENCES AND FURTHER OPERABLE FOR REGISTRATION OF A PLURALITY OF SERVICE ENTITIES
211
TRANSMIT AN INDICATION MESSAGE INDICATIVE OF THE SIGNIFICANT OCCURRENCE TO THE SERVICE ENTITY

Fig. 6

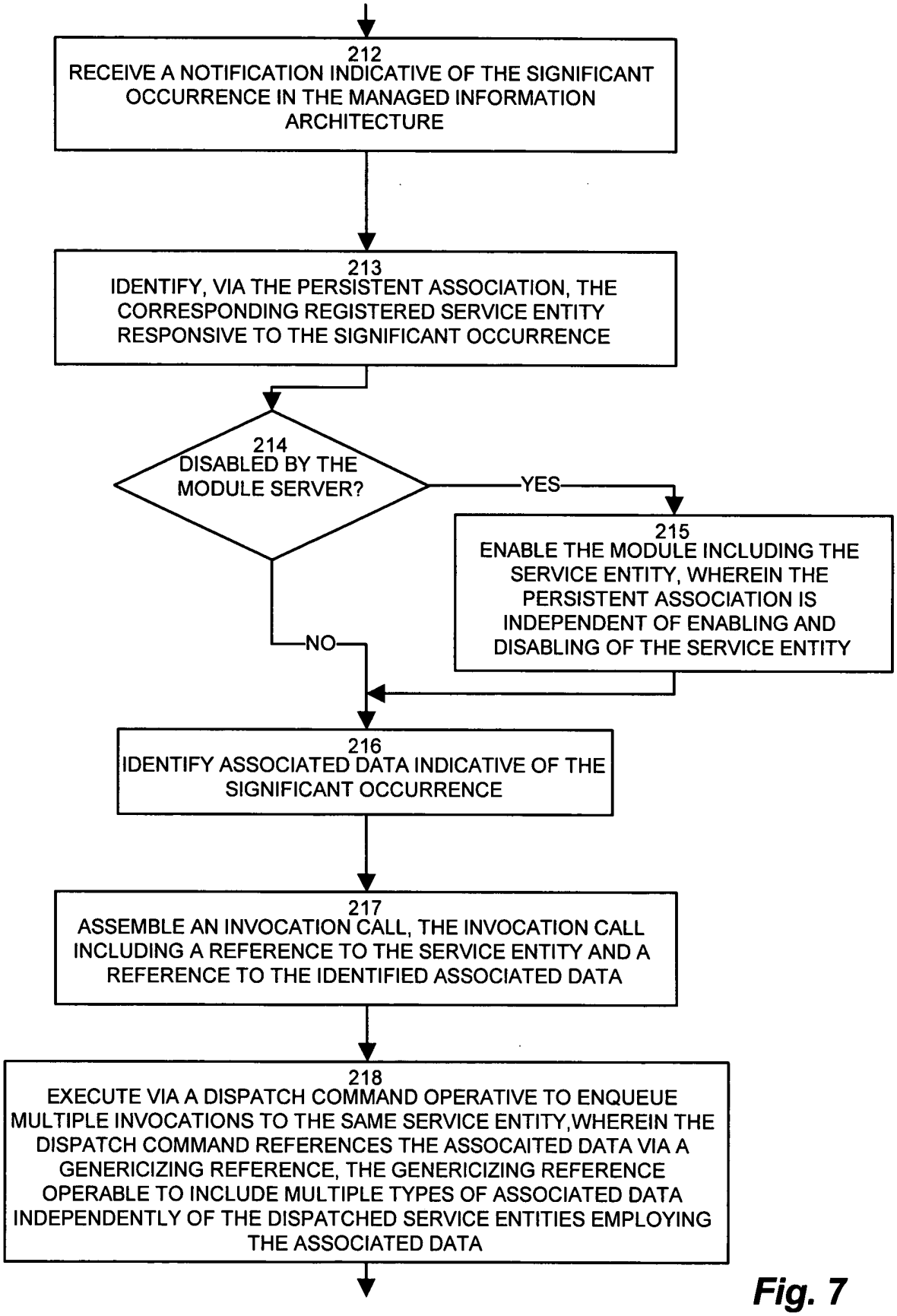
212
RECEIVE A NOTIFICATION INDICATIVE OF THE SIGNIFICANT OCCURRENCE IN THE MANAGED INFORMATION ARCHITECTURE
213
IDENTIFY, VIA THE PERSISTENT ASSOCIATION, THE CORRESPONDING REGISTERED SERVICE ENTITY RESPONSIVE TO THE SIGNIFICANT OCCURRENCE
214
DISABLED BY THE MODULE SERVER?
YES
215
ENABLE THE MODULE INCLUDING THE SERVICE ENTITY, WHEREIN THE PERSISTENT ASSOCIATION IS INDEPENDENT OF ENABLING AND DISABLING OF THE SERVICE ENTITY
NO
216
IDENTIFY ASSOCIATED DATA INDICATIVE OF THE SIGNIFICANT OCCURRENCE
217
ASSEMBLE AN INVOCATION CALL, THE INVOCATION CALL INCLUDING A REFERENCE TO THE SERVICE ENTITY AND A REFERENCE TO THE IDENTIFIED ASSOCIATED DATA
218
EXECUTE VIA A DISPATCH COMMAND OPERATIVE TO ENQUEUE MULTIPLE INVOCATIONS TO THE SAME SERVICE ENTITY,WHEREIN THE DISPATCH COMMAND REFERENCES THE ASSOCAITED DATA VIA A GENERICIZING REFERENCE, THE GENERICIZING REFERENCE OPERABLE TO INCLUDE MULTIPLE TYPES OF ASSOCIATED DATA INDEPENDENTLY OF THE DISPATCHED SERVICE ENTITIES EMPLOYING THE ASSOCIATED DATA

Fig. 7

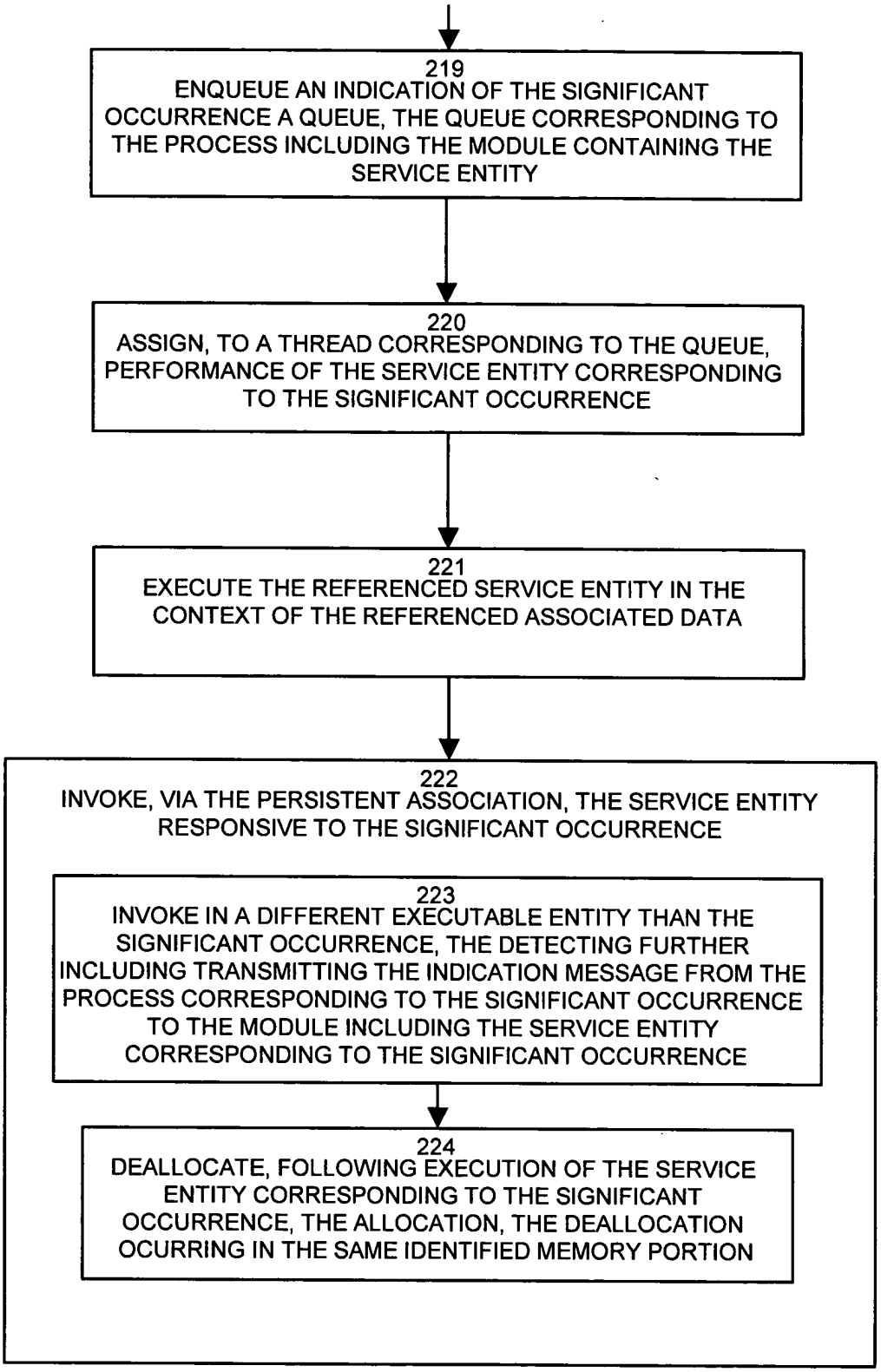
219
ENQUEUE AN INDICATION OF THE SIGNIFICANT OCCURRENCE A QUEUE, THE QUEUE CORRESPONDING TO THE PROCESS INCLUDING THE MODULE CONTAINING THE SERVICE ENTITY
220
ASSIGN, TO A THREAD CORRESPONDING TO THE QUEUE, PERFORMANCE OF THE SERVICE ENTITY CORRESPONDING TO THE SIGNIFICANT OCCURRENCE
221
EXECUTE THE REFERENCED SERVICE ENTITY IN THE CONTEXT OF THE REFERENCED ASSOCIATED DATA
222
INVOKE, VIA THE PERSISTENT ASSOCIATION, THE SERVICE ENTITY RESPONSIVE TO THE SIGNIFICANT OCCURRENCE
223
INVOKE IN A DIFFERENT EXECUTABLE ENTITY THAN THE SIGNIFICANT OCCURRENCE, THE DETECTING FURTHER INCLUDING TRANSMITTING THE INDICATION MESSAGE FROM THE PROCESS CORRESPONDING TO THE SIGNIFICANT OCCURRENCE TO THE MODULE INCLUDING THE SERVICE ENTITY CORRESPONDING TO THE SIGNIFICANT OCCURRENCE
224
DEALLOCATE, FOLLOWING EXECUTION OF THE SERVICE ENTITY CORRESPONDING TO THE SIGNIFICANT OCCURRENCE, THE ALLOCATION, THE DEALLOCATION OCURRING IN THE SAME IDENTIFIED MEMORY PORTION

Fig. 8